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ABSTRACT

Discussed in the handbook are the definitions and standards of eligibility for the special education program, the organization of the program (resource teachers, itinerant, multisystem, and multiply handicapped programs), and the problems if no special teacher is available. Information is given on special materials: registration of the legally blind, materials available on federal quota, methods of ordering them, repair of braillers, the instructional materials reference center, library facilities, and large print books. Also detailed are requirements for teacher certification and job descriptions of the local director, principal, regular teacher, resource/itinerant teacher, aides, mobility specialists, other school personnel, and consultants. The responsibilities of the Georgia school system and the library for the blind and physically handicapped are mentioned. Also considered are the needs for interested teachers, adequate materials, and an imaginative approach. (JM)

SPECIAL PROBLEMS

SPECIAL SOLUTIONS

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Handbook for Teachers of the Visually Handicapped

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SPECIAL PROBLEMS SPECIAL SOLUTIONS

Handbook for Teachers of the Visually Handicapped

Preface

This handbook has been prepared to answer questions which arise each year concerning educational programs and services for visually handicapped children in Georgia. Appreciation is expressed to all the educators of the visually handicapped whose discussions contributed thoughts and ideas to this publication.

Particular thanks are extended to Roger Huff, Mobility Instructor, Atlanta Public Schools, and to Selena Powell and Patricia Anderson, staff in this office, for their invaluable assistance in editing and compiling the material presented here.

Ruth H. Carpenter
Consultant, Visually Handicapped
Program For Exceptional Children

Contents

Preface
Contents
Introduction 1
Who Is Eligible? 2
- Standards of Eligibility
- Definitions

How Are Programs Organized? 5
- Resource Room and Resource Teacher
- Itinerant Program
- Multi-System Program
- Multi-Handicapped Program

What If There Is No Special Teacher? 7
What Special Materials Are Available? 9
- Registration of Legally Blind Children
- Materials Available On Federal Quota
- Ordering
- Repair of Braillers
- Instructional Materials Reference Center
- Library for the Blind and Physically Handicapped
- Other Sources of Materials

How Are Teachers Certified? 15
Who Does What? 16
- Local Director, Program for Exceptional Children
- Principal
- Regular Classroom Teacher
- Resource/Itinerant Teacher
- Volunteers and Aides
- Mobility Specialist
- Other School Personnel
- Consultant for the Visually Handicapped
- Georgia School Systems
- Library for the Blind and Physically Handicapped

What Makes the Difference? 24
- The Teacher
- The Materials
- The Approach

Appendix 36
- Professional Resources
- Vocabulary of Terms Relating to the Eye
- Guidelines for Resource and Itinerant Teachers

Introduction

Some children learn through all their senses; some through two or three; some through only one. Hence, curricular offerings, organizational arrangements, teaching plans and techniques, time allowances, amounts and kinds of supervision should all vary in terms of what is the best avenue of learning for each child.

This handbook has been prepared to assist school administrators, local directors and teachers of visually handicapped children in planning, developing and administering services for children with visual impairments.

Robert N. Shigley
Director, Division of Special Education
and Pupil Personnel Services

Who Is Eligible?

Any child whose visual loss interferes with his school performance is eligible for educational services. Children who need special services may have visual impairments which range from partial sight to total blindness. A significant visual loss may be caused by disease, refractive errors, malformation, injury, neurological impairments, convalescence from surgery or other causes.

Standards of Eligibility

To be eligible for a special educational program including books and instructional materials, a child must be examined by an eye specialist. A report of this examination, including visual acuity, should be filed with the Consultant for the Visually Handicapped, Program for Exceptional Children, Georgia Department of Education. The "Eye Report for Children with Visual Problems," prepared by the National Society for the Prevention of Blindness, is available in quantity from the Program for Exceptional Children and provides much needed information to the Consultant when filled out properly.

Definitions

For educational purposes it is necessary to identify children as partially seeing or blind. This is done by measuring each child's ability to see at near point as well as at a distance.

PARTIALLY SEEING

Children whose visual loss constitutes an educational handicap but who are able to use ink print as their chief educational medium are defined as partially seeing. Their visual acuity will usually range from 20/70 to 20/200 or worse, although sometimes a child with a visual acuity better than

20/70 may need educational services. Requests for inclusion of these children should be made to the Consultant for the Visually Handicapped, Program for Exceptional Children, Georgia Department of Education.

FUNCTIONALLY BLIND

The functionally blind child is one who is not able to use print as his reading medium. Instruction in braille, in the use of recorded material and auditory stimulation will be essential for this child's education. Legal blindness is a descriptive term which applies to some functionally blind children and to some partially seeing children. It is used solely for qualifying eligible children for materials and services from governmental and other agencies. They define as blind any person who has a visual acuity of 20/200 or less in the better eye after correction, or whose peripheral field subtends an arc of 20° or less.

How Are Programs Organized?

There are several programs approved as units for state support in Georgia. A unit consists of a teacher and from six to twelve children.

Resource Room and Resource Teacher

A resource room, staffed by a professionally prepared teacher of the visually handicapped, is located in a central school where several eligible children may be enrolled. Children are enrolled in regular classes and come to the resource room on a daily schedule for instruction in braille, typing, listening skills, travel training or needed instruction in other areas of the curriculum.

Itinerant Program

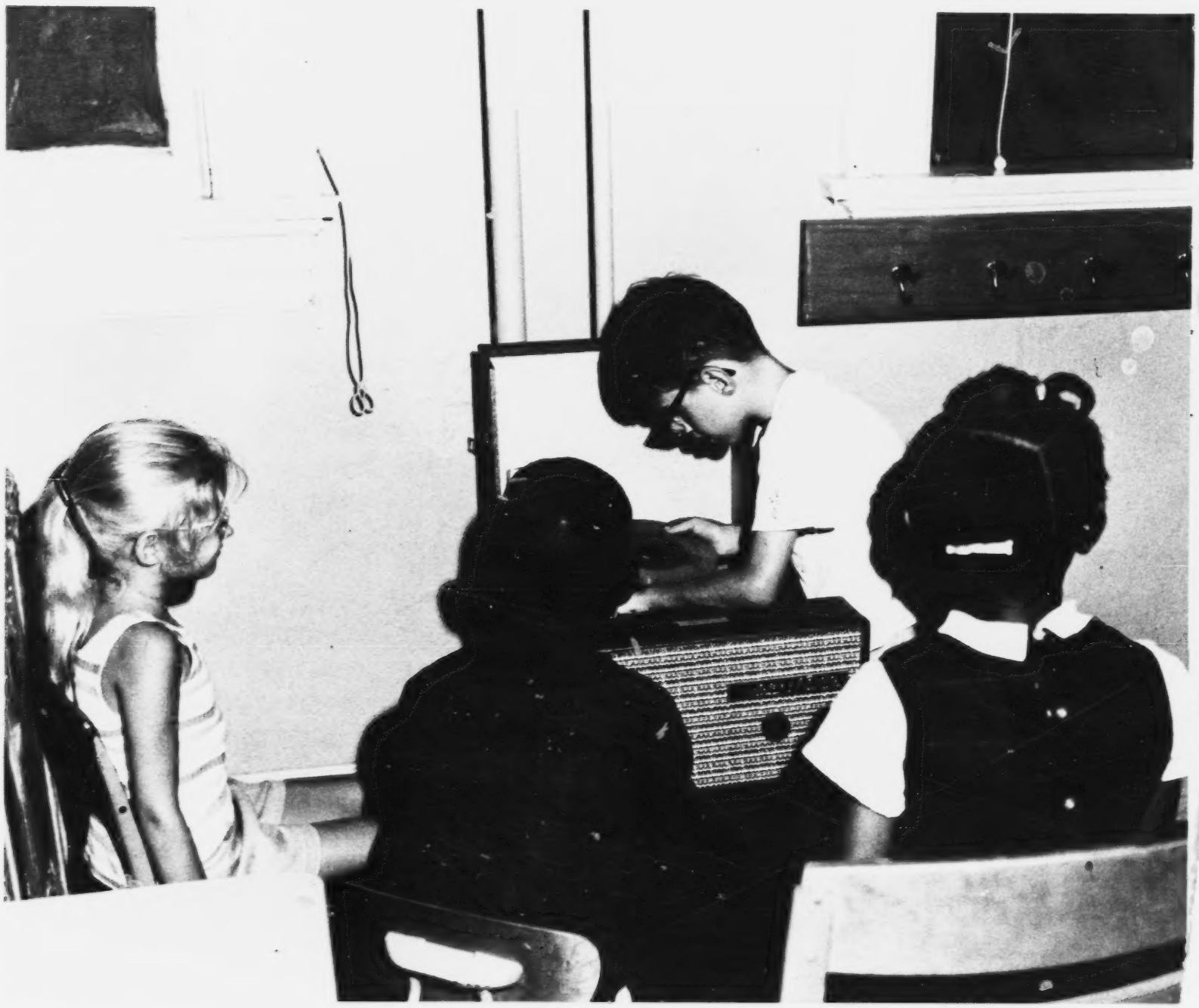
In an itinerant program, the teacher of the visually handicapped travels from school to school, providing individual services as needed. Children are enrolled in regular classes and come to the itinerant teacher when she visits the school. The itinerant teacher may serve either blind or partially seeing children and usually serves both.

Multi-System Program

Small school systems may join together to provide a program for visually handicapped children on a cooperative basis, with one system serving as the fiscal agent. A central resource room with the appropriate instructional materials and books should be provided to serve as a headquarters for the teachers. Usually, teachers serve visually handicappd children in several school systems on an itinerant program with a regular weekly schedule, depending on children's needs.

Multi–Handicapped Program

Some children with additional handicaps (retardation, emotional disturbance, hearing loss and other health impairments) may need self-contained class placement. The teacher of the visually handicapped plans individualized programs and teaches some of these children all day. Whenever possible, the children should join other classes for art, music, drama, physical education and any other subject where they can function comfortably.



What If There Is No Special Teacher?

When a visually handicapped child is enrolled in school, the local system accepts the responsibility for providing the educational services he will need. If there is no trained teacher of visually handicapped children in a school system, the regular classroom teacher should plan special considerations for him. Preferential seating and adequate lighting should be provided when needed. Braille, large type books and special instructional materials are available for any visually handicapped child who has been registered with the Program for Exceptional Children.

In school systems without special services, the regular teacher may promote an inspiring atmosphere in her classroom if she emphasizes the abilities of the visually handicapped student, holding this individual to the same standards as other children in the class. With consideration and encouragement and with special books and instructional materials to meet his needs, the visually handicapped child can usually succeed. However, his progress should be watched carefully to assure success.

Belonging to and being accepted by a group of peers has a wholesome effect upon the development of any child or adolescent. With a visually handicapped student this factor is very important. He should be included in as many class activities as possible. He might be a helpful addition to the school orchestra or chorus. He, too, should be considered for a role in the class play or assembly program. If the class is planning a special project, a demonstration lesson, a trip or any other school event, the visually handicapped student should be included.

The same general methods of instruction used for normally sighted students are equally valid for a visually handicapped student. However, he may need assistance with such classroom activities as handling diagrams, chalkboard illustrations, mapwork, books with conventional print, science experiments and mathematical symbols. He may need a magnifying glass or other low vision aid or a high intensity lamp to provide extra light to complete his school work.

School systems with more than 6,000 school-age children are encouraged to plan a unit for visually handicapped children. Every effort should be made to recruit a qualified teacher of the visually handicapped. A successful experienced teacher from within the school system may be recruited to study in the area of visually handicapped. There are scholarship funds available through the colleges offering planned programs which prepare professional teachers of the visually handicapped, or through the Georgia Department of Education. One teacher may not make a program, but she can be of invaluable help to the school system in initiating the comprehensive services which are needed in a total program, and in recruiting additional personnel when they are needed. Consultative services are available from the Program for Exceptional Children, Georgia Department of Education.

What Special Materials Are Available?

Registration of Legally Blind Pupils

The federal government provides an annual appropriation under the "Act to Promote the Education of the Blind" for legally blind children (visual acuity of 20/200 or worse) registered with the American Printing House for the Blind. Presently this appropriation amounts to approximately $60 per child.

In Georgia the federal quota registration is administered by the Program for Exceptional Children. School systems are requested to register all legally blind children who are enrolled in school as of the first Monday in January. Forms are sent to systems in January and must be completed and returned to the Program for Exceptional Children by February 15 each year.

Federal quota funds are deposited with the American Printing House for the Blind and an allocation account is made for Georgia children who have been registered. Against this account, books and materials are purchased from the Printing House.

Materials Available on Federal Quota

- Braille and large type books
- Recorded educational aids to learning (tapes)
- Tangible aids
  - Tape recorders
  - Braille writers
  - Maps and globes
  - Math and music aids
  - Book stands

Talking book record player and records
Punched braille paper
Notebooks
Wide-lined paper for partially seeing children
And many others

Ordering

1. Obtain catalogs from

   American Printing House for the Blind
   1839 Frankfort Avenue
   Louisville, Kentucky 40206.

2. Complete "Request for Large Type and Braille Books" (Form IEC-V-1), giving title, copyright date, catalog number and price.

3. Use separate Form IEC-V-1 for ordering tangible aids, large type books, braille books and recorded materials. Mark clearly at top which type aid is being requested.

4. Send completed forms to
   Consultant for the Visually Handicapped
   Program for Exceptional Children
   Georgia Department of Education
   Atlanta, Georgia 30334.

5. Submit by May 15 orders for books and instructional materials for the following school year to the Consultant for Visually Handicapped, Program for Exceptional Children; receipt of books by the opening of school cannot be guaranteed if purchase orders are not forwarded to the Printing House by June 1.

If books ordered are in the textbook collection maintained by the Georgia Library for the Blind and Physically Handicapped, they will be shipped immediately.

Books purchased from the American Printing House for the Blind are shipped to the Library for the Blind and Physically Handicapped for processing and cataloging. They are then shipped to school systems by the Library for the Blind and Physically Handicapped. The purchase-shipment-catalog process usually takes about two weeks.

All books must be returned at the end of the school year to
Textbook Consultant
Library for the Blind and Physically Handicapped
1050 Murphy Avenue, S.W.
Atlanta, Georgia 30310.

If packages are marked "FREE FOR THE BLIND" they may be mailed postage free. If a textbook has more than one volume, all volumes should be shipped together when they are being returned to the Library. School systems will be expected to replace lost or missing volumes. This is both costly and difficult, so care should be taken to keep volumes together. If books and materials have not been received in three weeks, be sure to notify the Consultant for the Visually Handicapped.

THE PERKINS BRAILLER
WRITING DEVICE FOR THE BLIND
AMERICAN PRINTING HOUSE FOR THE BLIND
THE PERKINS BRAILLER

A6129

Repair of Braillers

Braillers which need repair should be shipped directly to the American Printing House for the Blind. They should be shipped marked "Free for the Blind," but should be insured for $100. P. O. Receipt should be retained until the brailler has been returned to the school system. Braillers should be listed by serial number on a standard book order form, with a statement of the problem needing attention; eg, "Keys stick," "Rubber feet need replacement." The book order form should be mailed to the Consultant for the Visually Handicapped, Program for Exceptional Children, Georgia Department of Education. A duplicate copy should be enclosed with the brailler, which should be well packed in the box in which it was originally shipped. Cost of repair will be deducted from the federal quota account. There will be no cost to the school system for the repair. The brailler will be returned directly to the school system when repair has been completed.

APH Instructional Materials Reference Center

The Instructional Materials Reference Center at the American Printing House for the Blind maintains a central catalog listing of volunteer-produced braille, large type and recorded textbooks. Commercially-produced large type textbooks and supplementary reading materials are included. It is possible to borrow, buy or have reproduced textbooks which are listed in the Central Catalog. A listing of commercial firms which produce large type books and other instructional materials may be secured from the Instructional Materials Reference Center.

The Consultant for Visually Handicapped will locate textbooks through the Instructional Materials Reference Center Central Catalog and will help school systems to borrow copies whenever possible. Purchases can be made through regular textbook funds.

Georgia Library for the Blind and Physically Handicapped

The Library for the Blind and Physically Handicapped maintains the collection of American Printing House braille and large type textbooks purchased by the Program for Exceptional Children. These may be borrowed by any school system for use during the school year. They must be returned to the Library at the end of the school year. The school superintendent should designate one person to be responsible for ordering and returning textbooks which have been borrowed.

In addition to textbooks, the Library has collections of braille, large type and recorded library books and supplementary reading materials made available by the Library of Congress. These materials are available to all visually and physically handicapped children.

Other Sources of Materials

Textbook funds may be used to purchase large type books available from an increasing number of publishers. Requests may be made on regular textbook order forms submitted to

Georgia Professional Textbook Selection Committee
Division of Curriculum Development
Georgia Department of Education
Atlanta, Georgia 30334.

Library funds can be used to purchase supplemental reading books in large type for school libraries.

How Are Teachers Certified?

To receive certification in Georgia, a candidate submits to the Teacher Certification Office, Georgia Department of Education, an

- application for certification;
- transcript of credits;
- recommendation of an approved college or university stating that the candidate has completed a planned program.

A teacher not fully certified in the area of the visually handicapped may be approved for employment provided the teacher has completed ten quarter hours of a planned program in an approved college or university and agrees to complete ten quarter hours each year until certified in the area. The planned program of the person employed shall be submitted to the Teacher Certification Office with a statement of intent by the teacher that the work will be continued during the current school year or summer. Certification is obtainable at the 4th, 5th and 6th year level.

Universities in the southeastern United States currently offering programs leading to certification of teachers of the visually handicapped are Georgia State College, Florida State University, George Peabody College for Teachers, University of Texas and University of Virginia.

More specific information regarding training programs may be obtained either by writing to the college or university or by contacting the Consultant for the Visually Handicapped.

Who Does What?

The organization and administration of a special education program for visually handicapped students involves personnel at several levels of responsibility within the educational framework of the local school system and the Department of Education.

The Consultant for the Visually Handicapped, Program for Exceptional Children, Georgia Department of Education furnishes consultative services to public school systems interested in providing appropriate educational programs for visually handicapped children. The consultant is available for professional help to the school administrators and teachers of any school system in Georgia. The consultant may provide help in the organization and supervision of vision programs, in the initiation of new services within existing programs and in helping local schools make provisions for isolated children not being served by special education teachers.

The basic responsibilities for establishing and administering special class units for visually handicapped children rest with the local school board and the local school superintendent and/or his designee.

Local Director, Program for Exceptional Children

The director organizes, develops and coordinates the vision program as well as other programs for exceptional children in that school system.

Principal

The principal determines the climate in which the teacher of the visually handicapped works. All schedules and room needs should be cleared with the principal and he should be informed of any variation in schedule. All recommendations concerning children should be made through the principal.

Regular Classroom Teacher

The regular classroom teacher has the responsibility for the total educational program of each child in his room. It is essential that the resource and itinerant teachers of the visually handicapped work closely with the regular teacher of each child in order to schedule the child at the most appropriate time of day and to relate their work to the curricular needs of the child. The progress and needs of the child must be communicated to the regular teacher so that good practices may be incorporated throughout the child's daily program.

Resource/Itinerant Teacher

This teacher assists the administrative staff in finding the proper class placement for the visually handicapped student depending on the student's individual needs. After taking into consideration the visual limitations noted on the eye examination report, academic records and test scores, the special education teacher, with the aid of the school administrative staff, will be able to plan a comprehensive plan to meet the child's needs.

The resource/itinerant teacher plans a schedule to provide each student with time for individual or group instruction, independent study and training in the use of materials and equipment. Any materials not available in special form for the visually handicapped student should be given to the special education teacher well in advance so that they may be adapted for the student's use. The special education teacher will make arrangements to braille, type, have reproduced in large print and/or record class assignments, tests, reading and study materials.

The resource/itinerant teacher should have a copy of each textbook used by her students so that she may work effectively with them in reinforcing learning and in assisting with homework or supplementary assignments. She will also need these textbooks to make necessary preparations or adaptations for the student or the regular teacher.

Volunteers and Aides

Many school systems rely on the help of community volunteers and aides to transcribe educational materials into braille and large type; to record textbooks, daily class needs and current events. Such help enables the teaching staff to spend their time in professional instruction.

Braillists who have completed the Library of Congress course for transcribers are eligible to be members of the National Braille Association, and to be listed in the Library of Congress list of Volunteer Transcribers. In addition, the Library of Congress has a course in braille proofreading, a very necessary part of any transcribing service.

Mobility Specialist

The mobility specialist or the resource/itinerant teacher will help the student learn the layout of the school building and grounds so that he may effectively travel independently within the school. After several weeks, most visually handicapped students will be able to travel without help to classrooms, cafeteria, restrooms and playground.

The specialist will teach travel routes and techniques to give the student assurance which will aid the student in gaining a feeling of independence.

If no such personnel are available, the principal or classroom teacher can show the building to the student, paying close attention to directional terms such as "left, right, east, west," etc. The student should be encouraged to walk down the righthand side of the corridor. Teachers should be asked to keep their doors completely open or completely closed. The door that is ajar poses the worst threat to a student with a severe visual handicap.

Other School Personnel

The guidance counselor, school nurse, physical education teacher, office secretary, lunchroom staff and others not only should know there is a visually handicapped student within the school but should be given some interpretation of the way he functions. The special education teacher may consult with any school personnel regarding a relevant problem.

Consultant for the Visually Handicapped

The consultant for the visually handicapped

- provides consultative help to school systems in developing and expanding educational programs for visually handicapped children;
- registers visually handicapped children for services and instructional materials;
- maintains a file of eye examination reports on all visually handicapped children in public schools;
- receives orders for books and instructional materials; administers annual federal quota registration of legally blind pupils;
- purchases books and instructional materials on federal quota account for visually handicapped children in public schools.

Georgia School Systems

School systems have responsibility to

- survey and identify visually handicapped children needing services through annual vision screening, provide follow-up by public health nurse of pupils who fall below normal and encourage parents to secure professional eye examinations;
- register all visually handicapped children by submitting a current eye examination report to the Consultant for the Visually Handicapped (This may be done whenever a visually handicapped child is identified or a new visually handicapped child enters school.);
- request consultative services of the Consultant for the Visually Handicapped in planning and developing educational programs for visually handicapped children;
- assign a professional staff member (perhaps the school librarian) to be responsible for ordering and returning braille and large type textbooks (See page 10 for procedures.);
- request instructional materials catalogs and ask to be placed on mailing list to receive new materials as published from American Printing House for the Blind, 1839 Frankfort Avenue, Louisville, Kentucky 40206.

Georgia Library for the Blind and Physically Handicapped

This library

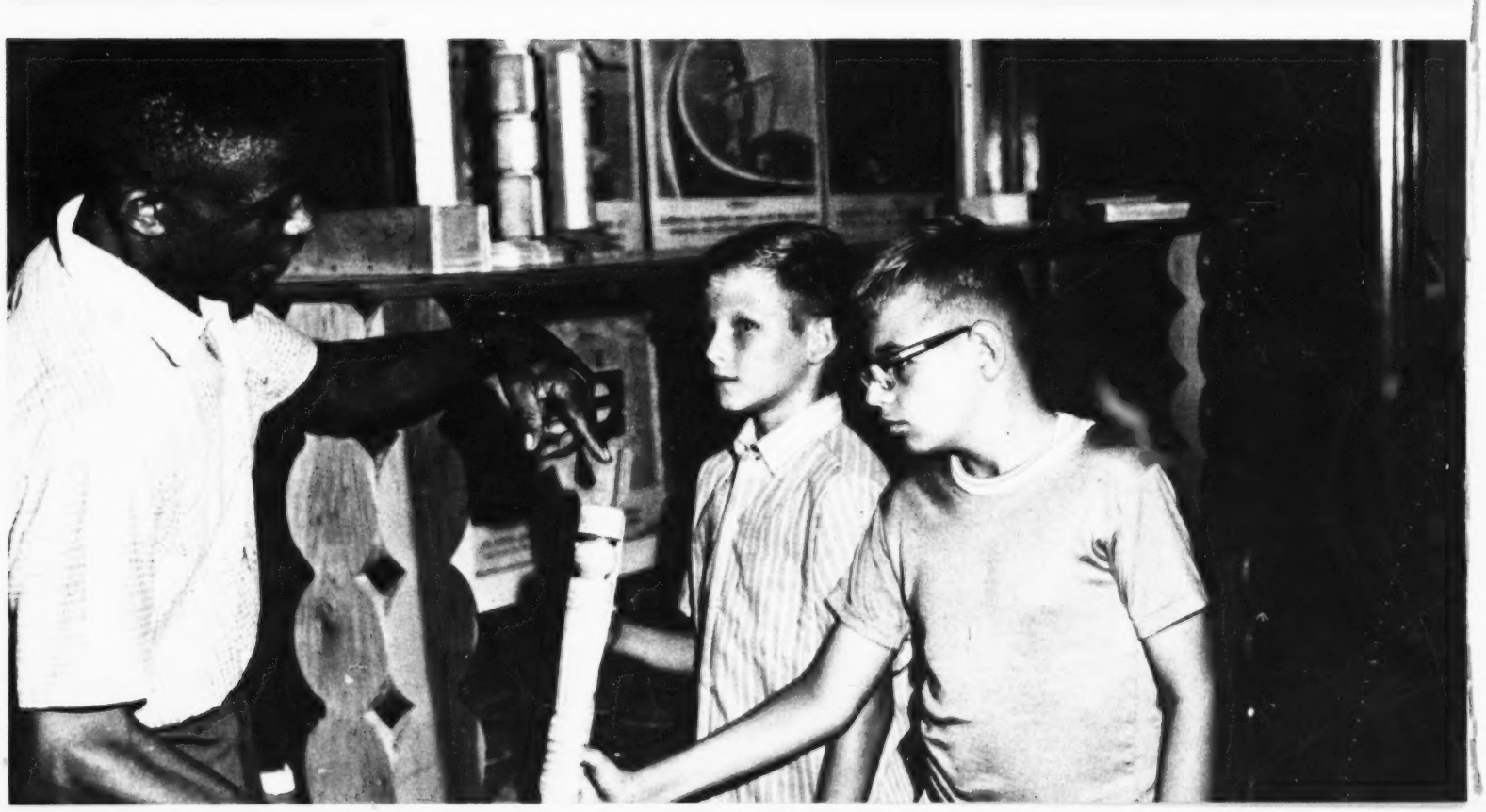
- maintains and circulates braille and large type textbooks to visually handicapped children in public schools;
- provides supplemental reading in braille, large type and recorded form to visually and physically handicapped persons;

- provides talking book records and record players to visually and physically handicapped persons upon request;
- provides research and reference services to blind persons.

What Makes The Difference?

Success in the education of visually handicapped children in regular classes with their sighted peers is directly related to their teacher and to the adequacy of materials provided for them. Teaching methods in the average class are habitually visual, with classwork demonstrated on the chalkboard and seatwork often done in workbooks or on duplicated materials of poor legibility.

The visually handicapped child needs an auditory-tactile approach to learning with a strong emphasis on real experiences and concrete examples. The creative teacher accepts a severely visually handicapped child in class as a challenge to adapt her methods of instruction from visual to auditory-concrete-tactile presentation. Calling upon senses other than sight to invoke and stimulate learning gives every child an opportunity to receive information through all available sensory channels.



Large print books are not the complete answer to vision problems for partially sighted children. Regular print in first and second grade books is large enough for most visually handicapped students. A child may be a "nose and chin" reader, holding the book close to his face. The eye is a natural magnifier, so the student is doing the best he can to achieve the magnification he needs. The teacher should watch closely to be sure there is enough light on the page when the book is held close to the eyes and then let the child judge his most effective reading distance. She should be aware that fatigue is a factor when a youngster is reading at such close range and give him an opportunity to put the book down to give the eyes a rest.

Before large print books are ordered or prescribed, the teacher should try out the student's reading facility using print of various sizes. Some partially sighted students can read regular print to better advantage than they can read large type.

Many children with very poor sight use their residual vision with remarkable efficiency; others with better visual acuity seem to need more help. The way in which a child uses his vision is the important thing to notice in planning his educational program. Visual efficiency may vary from one day to another or from morning to afternoon, so if the teacher notes that a child sees better some times than at others, she is correct in her observation. There is no way to predict when or why the vision will vary.

Important points to know are

- use does not injure the eye;
- glasses cannot correct all visual impairments;
- large print does not enable all children to see better;
- the need for large print is determined for each child individually.

Many recreational activities are suitable for partially sighted children. It has been noted that the visual efficiency of partially sighted

children is increased when they play ball and other games which develop responsive coordination.

The partially sighted children may need to use primary pencils throughout the early grades. He may also need sight saving paper with broad lines to develop his writing skill. Typing is taught to most visually handicapped children in the fourth or fifth grade.

In dealing with the overall content of the normal school curriculum, the regular classroom teacher should be familiar with the materials, apparatus and adaptations which may assist her in helping visually handicapped students learn more effectively.

Braille, Large Print and Tape Recorders

Visually handicapped students have three major methods of dealing with language.

1. BRAILLE may be written using a braillewriter (similar in size and function to the regular typewriter) or the slate and stylus which is a portable device for writing braille by hand. Most pupils learn to write on a braillewriter and learn to use slate and stylus when changing classes demand portability. The student should be permitted to bring his writing device to class to take notes for his own use.

2. LARGE PRINT is produced by a large print typewriter, usually available from the resource/itinerant teacher. Study materials, tests and class assignments may be typed in large print to encourage the student to complete his work with minimal assistance.

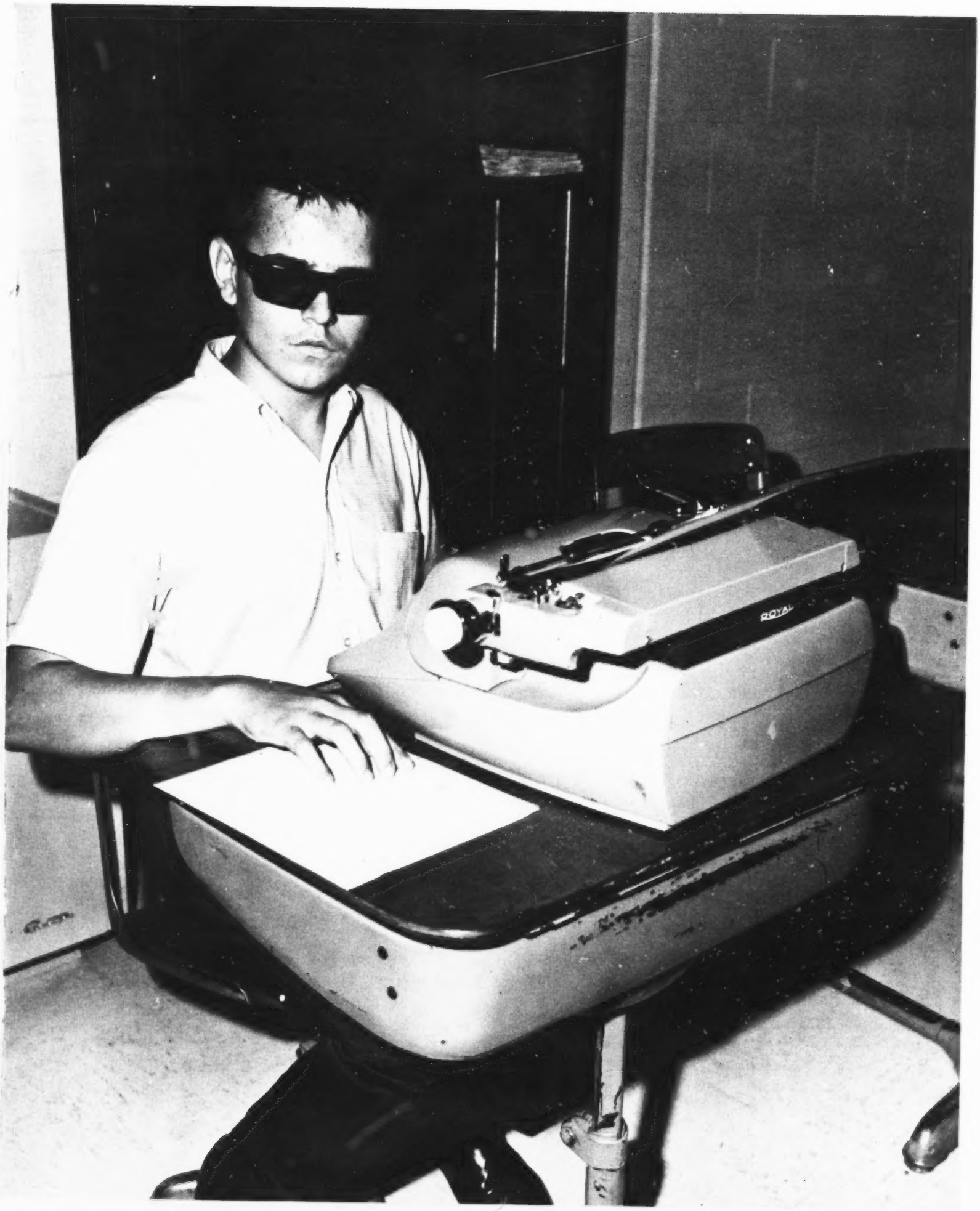
3. TAPE RECORDINGS made by the classroom teacher, resource teacher or volunteer may record textbooks, assigned readings or other written materials unavailable to the student in braille or large type. They are usually available upon request from the resource/itinerant teacher and may be used by both teacher and student.

Regular Typewriter

Use of the regular typewriter should be encouraged when students are taking tests or preparing homework assignments. Typing is usually taught to visually handicapped children in the fourth or fifth grade. When tests are given to the resource/itinerant teacher prior to test day, they may be brailled or typed in large print for the student's use during the test. Reading the braille or large print test, the student can record his answers using the regular typewriter. Homework or class assignments turned in to the regular teacher should be typed.

Talking Books

Talking books are provided by the Library of Congress, Division for the Blind and Physically Handicapped, and are available to children who are visually or physically handicapped. The talking book is a recording of books, plays and articles by readers on a high professional level and may be useful for book reports, literature assignments or leisure reading. Application for borrowing talking books is made to the Georgia Library for the Blind and Physically Handicapped.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Low Vision Aids

The use of magnifiers or low vision aids has enabled many visually handicapped students to use regular print editions of material found in the classroom. The aids consist of telescopic, microscopic and magnifying lenses, hand magnifiers and desk magnifiers. The particular type of magnifier used is based on individual need and, to some extent, on personal adaptability and preference. Any individual with a visual loss may profit from the use of an aid; however, the individual using the aid is the best judge of its effectiveness.

Mathematics

There are several aids to assist the student in learning mathematics concepts.

The Sewell Raised Line Drawing Kit (AFB Catalog) is used to draw tactile figures and is especially helpful to the student in working geometry problems. The kit consists of a rubberized board, compass, protractor, ruler, writing stylus and acetate paper.

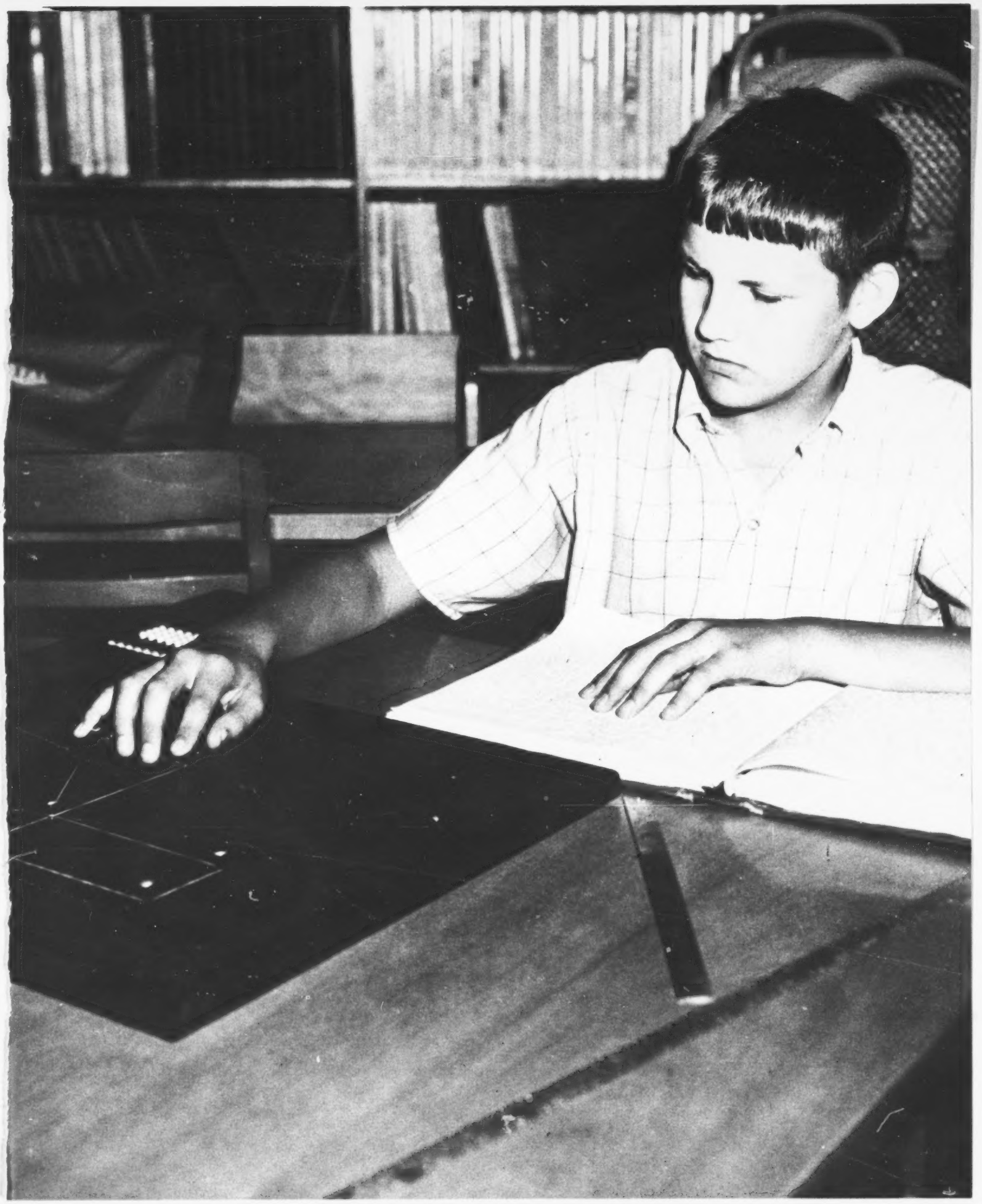
The Graphic Aid for Mathematics (APH Catalog) will assist the student in plotting graphs, slope and geometric constructions. The kit consists of a rubberized board embossed with vertical and horizontal lines, tacks, rubber bands and flat spring wires.

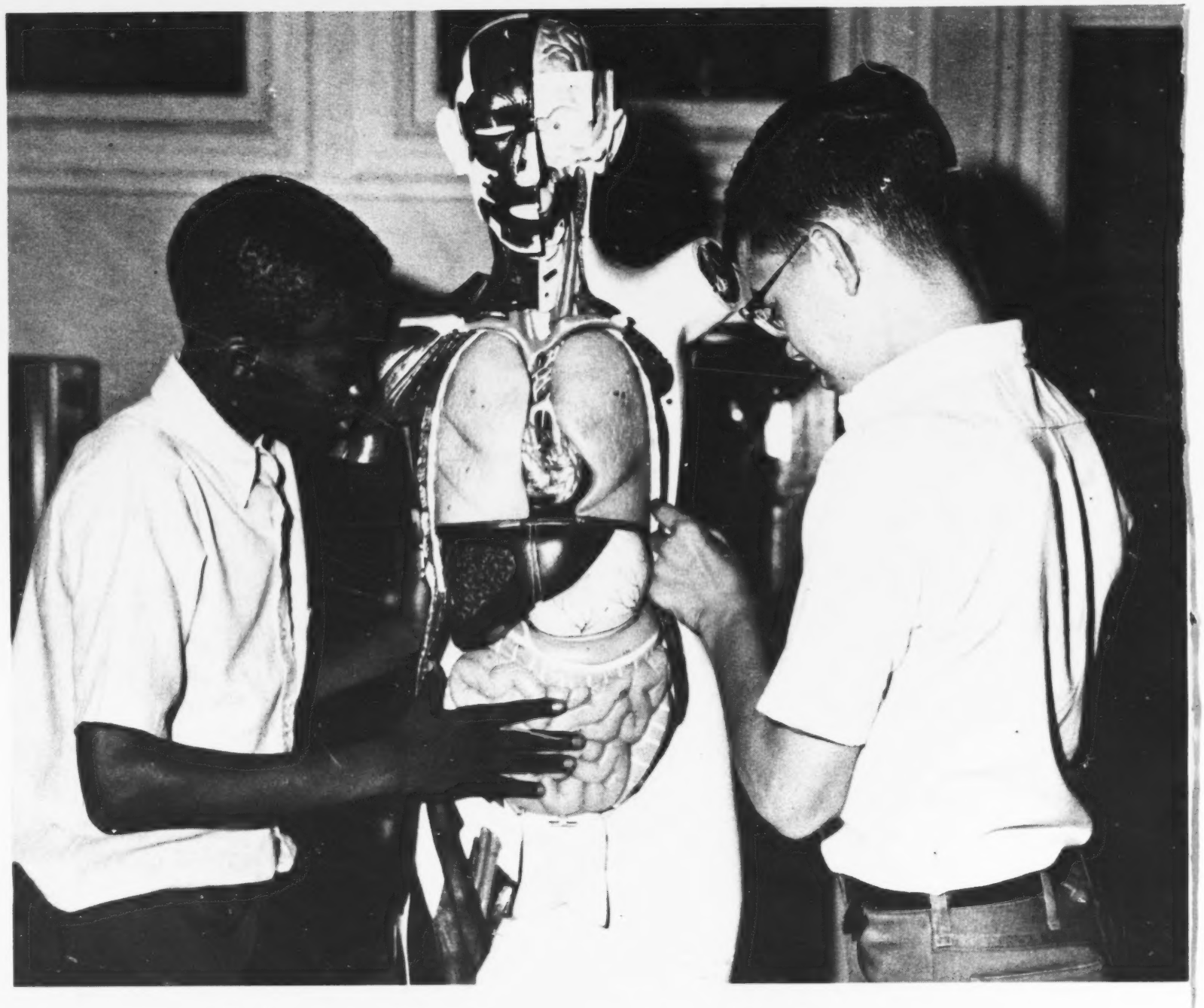
Other aids include the abacus, embossed graph paper, Mitchell Geometric Forms, etc. (APH Catalog).

Social Studies

Three-dimensional maps and globes are available from the American Printing House for the Blind and a number of commercial publishers. The American Foundation for the Blind and Howe Press have braille maps which may be purchased.

Volunteers, teacher aides or the resource teacher may record material unavailable in braille or large print. There may be textbooks available in braille and large print which will parallel the text being studied in the class. When ordering a text for use by the student, be sure to order the atlas at the same time. APH texts and atlases cannot be sold separately except for replacement.





Science

The team approach is helpful in performing science experiments. The teacher may ask a responsible student in the class to work with the visually handicapped student in collecting data. Adapted apparatus such as brailled scales, thermometer, vernier caliper and micrometer are available by special order from the American Foundation for the Blind catalog.

Foreign Language

If a foreign language book is unavailable in braille or large print, the teacher may tape the lessons and exercises. Spelling out foreign words and phrases is difficult, so every effort should be made to secure foreign language books in written form for the visually handicapped child to study. Brailling or large print typing of foreign languages is especially difficult; therefore, adequate time should be allowed for the resource teacher to plan for transcribing. A well-trained volunteer may specialize in this sort of work, as others do in math or science.

English

The teacher should verbalize all work when writing on the blackboard. She should read written exercises to the visually handicapped student if they cannot be brailled or typed in large print. Tests, pop quizzes and assignments turned in to the teacher may be typed by the students to enable the regular classroom teacher to evaluate his work. Class discussion and participation should be encouraged.

Home Economics

Participation of the visually handicapped student in sewing, cooking, homemaking and child care classes should be encouraged. Sewing guides for use on electric sewing machines are available through the American Foundation for the Blind catalog. Adapted cooking equipment (AFB Catalog) may facilitate work in the kitchen; however, skillful supervision is important when the student is cooking, cutting meat and vegetables or cleaning up the kitchen. Encourage the student to braille or type menus. Classes which discuss the roles of the husband and wife as well as household management will be extremely beneficial.

Music

Most visually handicapped students enjoy music. Participation in band, chorus and music trips should be encouraged. Braille music

is available from the American Printing House for the Blind. Large type music may be ordered from

Boston Music Company
116 Boylston Street
Boston, Mass. 02116

G. Schirmer, Inc.
609 Fifth Avenue
New York, New York 10017

National Aid to the Visually Handicapped
3201 Balboa Street
San Francisco, Calif. 94121

Library of Congress
Division for Blind and Physically Handicapped
Washington, D.C. 20542

Mills Music, Inc.
1619 Broadway
New York, New York 10019

Physical Education

The teacher should determine through medical authorities if the student has any physical limitations. The visually handicapped student should be integrated into regular physical education classes. The teacher should plan a physical exercise program for the student; involve him in class activities. DO NOT LET HIM SIT!

Bowling, swimming, basketball, kickball, tumbling, gymnastics, wrestling, shuffleboard, horseshoes, track and field events are activities which require minimum adaptation for the visually handicapped student.

Fine Arts

All the world is a stage and **every** person is an actor! Drama, music appreciation, art appreciation, ceramics and drawing should be parts of the curriculum for visually handicapped as well as other students. Raised line drawing kits and braille wheels and compasses make graphic art possible for even the most severely visually handicapped children. Finger painting, clay modeling, paper-mache and wire sculpture are just a few art activities which offer a creative outlet for all students.

Extracurricular Activities

Too often, the visually handicapped student is a stranger in his own school. He should be encouraged to participate in service clubs and newspaper and annual publications.

Interacting with sighted peers, the visually handicapped student will gain confidence, poise and success in a sighted man's world, while demonstrating to others that total or partial lack of sight need not prevent a person from participating in all the activities that make for a rich, self -fulfilled life.

Georgia Academy for the Blind

Any child who is legally blind (20/200 or less in better eye after correction) is eligible for admission to the Georgia Academy for the Blind in Macon. The Academy is a state residential school for children ages 5 to 21; it provides living facilities in cottages and dormitories and academic, industrial arts, physical education and recreation programs. School is in session from September until June. Students provide their own transportation to and from Macon, their clothing, personal belongings and spending money. Room, board and tuition are free to residents of Georgia. Students who live within commuting distance may enroll as day students. The Georgia Academy for the Blind is a unit of the Division of Special Education and Pupil Personnel Services. For detailed information, write

Superintendent
Georgia Academy for the Blind
Vineville Avenue
Macon, Georgia

Professional Resources

Georgia Agencies

GEORGIA DEPARTMENT OF EDUCATION

Program for Exceptional Children
State Office Building
Atlanta 30334

Academy for the Blind
2895 Vineville Avenue
Macon 31204

Library for the Blind and
Physically Handicapped
1050 Murphy Avenue, S.W.
Atlanta 30310

Rehabilitation Services for the Blind
State Office Building
Atlanta 30334

PRIVATE AGENCIES

American Foundation for the
Blind, Inc.
404 Candler Building
127 Peachtree Street, N.E.
Atlanta 30303

Community Services for the Blind
1341 Ponce de Leon Avenue, N.E.
Atlanta 30306

Foundation for the Visually
Handicapped, Inc.
45 Eleventh Street, N.E.
Atlanta 30309

Georgia Society for the Prevention
of Blindness
2025 Peachtree Road, N.E.
Atlanta 30309

Recording for the Blind
120 Florida Avenue
Athens 30601

MEDICAL AGENCIES

Low Vision Aids Clinic
Grady Hospital
80 Butler Street, S.E.
Atlanta 30303

National Communicable
Disease Center
1600 Clifton Road, N.E.
Atlanta 30333

Emory University School
of Orthoptics
1365 Clifton Road, N.E.
Atlanta 30333

Orthoptic Clinic
Emory Hospital
1364 Clifton Road, N.E.
Atlanta 30322

Orthoptic Clinic
Grady Hospital
80 Butler Street, S.E.
Atlanta 30303

National Organizations

American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

American Foundation for the Blind, Inc.
15 West 16th Street
New York, New York 10011

American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

American Optometric Association
4030 Chouteau Avenue
St. Louis, Missouri

American Public Health Association, Inc.
1740 Broadway
New York, New York 10019

American Academy of Ophthalmology and Otolaryngology
15 Second Street, S.W.
Rochester, Minnesota 55901

American Association for Health, Physical Education and Recreation
1201 Sixteenth Street, N.W.
Washington, D. C. 20036

Association of Educators of the Visually Handicapped
1604 Spruce Street
Philadelphia, Pa. 19103

Council for Exceptional Children
Division for Visually Handicapped
(Blind and Partially Seeing)
1201 - 16th Street, N.W.
Washington, D.C. 20036

Office of Education
Bureau of Education for the Handicapped
Washington, D.C. 20025

Office of Social and Rehabilitation Services
Washington, D.C. 20201

Library of Congress Division for the Blind and Physically Handicapped
Reference Department
Washington, D. C. 20542

National Health Council
1740 Broadway
New York, New York 10019

National Institute of Neurological Diseases and Blindness
National Institutes of Health
Bethesda, Maryland 20014

National Center for Chronic Disease Control
Neurological and Sensory Disease Service Program
4040 North Fairfax Drive
Arlington, Virginia 22203

National Society for the Prevention of Blindness, Inc.
79 Madison Avenue
New York, New York 10016

U.S. Department of Health, Education, and Welfare
Children's Bureau
Washington, D. C. 20201

Vocabulary of Terms Relating to the Eye

ACCOMMODATION—The adjustment of the eye for seeing at different distances, accomplished by changing the shape of the crystalline lens through action of the ciliary muscle, thus focusing a clear image on the retina.

ALBINISM—An hereditary loss of pigment in the iris, skin and hair; usually associated with lowered visual acuity, nystagmus and photophobia and often accompanied by refractive errors.

AMBLYOPIA—Dimness of vision without any apparent disease of the eye.

AMBLYOPIA EX ANOPSIA—Dimness of vision due to disuse of the eye; "Lazy Eye Blindness."

ANISEIKONIA—A condition in which the ocular image of an object as seen by one eye differs in size or shape from that seen by the other eye.

ASTHENOPIA—Eye fatigue caused by tiring of the internal or external muscles.

ASTIGMATISM—Refractive error which prevents the light rays from coming to a single focus on the retina because of different degrees of refraction in the various meridians of the eye.

BINOCULAR VISION—The ability to use the two eyes simultaneously to focus on the same object and to fuse the two images into a single image which gives a correct interpretation of its solidity and its position in space.

BLEPHARITIS—Inflammation of the margin of the eyelids.

BLINDNESS—In the United States, the legal definition of blindness is: central visual acuity of 20/200 or less in the better eye after correction; or visual acuity of more than 20/200 if there is a field defect in which the widest diameter of the visual field subtends an angle distance no greater than 20 degrees. Some states include up to 30 degrees.

C, CC (CUM CORRECTION)—With correction—wearing prescribed lenses.

CATARACT—A condition in which the crystalline lens of the eye or its capsule or both become opaque, with consequent loss of visual acuity.

CENTRAL VISUAL ACUITY—Ability of the eye to perceive the shape of objects in the direct line of vision.

COLOR DEFICIENCY—Diminished ability to perceive differences in color—usually for red or green, rarely for blue or yellow.

CONCAVE LENS—Lens having the power to diverge parallel rays of light; also known as diverging, reducing, negative, myopic or minus lens denoted by the sign — (minus).

CONGENITAL—Present at birth.

CONJUNCTIVA—Mucous membrane which lines the eyelids and covers the front part of the eyeball.

CONJUNCTIVITIS—Inflammation of the conjunctiva.

CONTACT OR CORNEAL LENSES—Lenses so constructed that they fit directly on the eyeball; used for the correction of vision in cases having a cone-shaped cornea and for cosmetic reasons. Corneal lenses are also used after cataract (lens) extraction to replace the lens removed from the eye. They provide less distortion and image size difference from the other eye than would spectacles.

CONVERGENCE—The process of directing the visual axes of the two eyes to a near point, with the result that the pupils of the two eyes are closer together. The eyes are turned inward.

CONVEX LENS—Lens having power to converge parallel rays of light and to bring them to a focus; also known as converging, magnifying, hyperopic, or plus lens, denoted by +.

CORNEA—Clear, transparent portion of the outer coat of eyeball forming front of aqueous chamber.

CORNEAL GRAFT—Operation to restore vision by replacing a section of opaque cornea with transparent cornea.

CRYSTALLINE LENS—A transparent, colorless body suspended in front of the eyeball, between the aqueous and the vitreous, the function of which is to bring the rays of light to a focus on the retina.

CYLINDRICAL LENS—A segment of a cylinder, the refractive power

of which varies in different meridians; used in the correction of astigmatism.

DEPTH PERCEPTION—The ability to perceive the solidity of objects and their relative position in space.

—DUCTION—A stem word with a prefix to describe the turning or rotation of the eyeball (abduction — turning out, adduction — turning in).

DYSLEXIA—Inability to read which is apparently due to a neurological problem.

ENUCLEATION—Complete surgical removal of the eyeball.

EYE DOMINANCE—Tendency of one eye to assume the major function of seeing, being assisted by the less dominant eye.

FIELD OF VISION—The entire area which can be seen without shifting the gaze.

FLOATERS—Small particles consisting of cells or fibrin which move in the vitreous.

FOCUS—Point to which rays are converged after passing through a lens; focal distance is the distance traveled by rays after refraction but before focus is reached.

FOVEA—Small depression in the retina at the back of the eye; the part of the macula adapted for most acute vision.

FUSION—The power of coordinating the images received by the two eyes into a single mental image.

GLAUCOMA—Increased pressure inside the eye; "hardening of the eyeball," caused by accumulation of aqueous fluid in the front portion.

IRIS—Colored, circular membrane, suspended behind the cornea and immediately in front of the lens. The iris regulates the amount of light entering the eye by changing the size of the pupil.

JAEGER TEST—A test for near vision in which lines of reading matter are printed in a series of various sizes of type.

LENS—A refractive medium having one or both surfaces curved.

LIGHT ADAPTATION—The power of the eye to adjust itself to variations in the amount of light.

LIGHT PERCEPTION (L.P.)—Ability to distinguish light from dark.

LOW VISION AIDS—Optical devices of various types useful to persons with vision impairment.

MICROSCOPIC GLASSES—Magnifying lenses arranged on the principle of a microscope, occasionally prescribed for persons with very poor vision.

MYOPIA—Nearsightedness—a refractive error in which, because the eyeball is too long in relation to its focusing power, the point of focus for rays of light from distant objects (parallel light rays) is in front of the retina. Thus, to obtain distinct vision, the object must be brought nearer to take advantage of divergent light rays (those from objects less than 20 feet away).

NEAR POINT OF ACCOMMODATION—The nearest point at which the eye can perceive an object distinctly. Varies according to the power of accommodation.

NEAR POINT OF CONVERGENCE—The nearest single point at which the two eyes can direct their visual lines, normally about three inches from the eyes in young people.

NEAR VISION—The ability to perceive distinctly objects at normal reading distance, or about 14 inches from the eyes.

NIGHT BLINDNESS—A condition in which the sight is good by day but deficient at night and in faint light

NYSTAGMUS—An involuntary, rapid movement of the eyeball; it may be lateral, vertical, rotary or mixed.

OCULIST OR OPHTHALMOLOGIST—A physician—an M.D.—who specializes in diagnosis and treatment of defects and diseases of the eye, performing surgery when necessary or prescribing other types of treatment, including glasses.

OCULUS DEXTER (O.D.)—Right eye.

OCULUS SINISTER (O.S.)—Left eye.

OCULUS UTERQUE (O.U.)—Both eyes.

OPHTHALMOSCOPE—An instrument used in examining the interior of the eye.

OPTIC ATROPHY—Degeneration of the nerve tissue which carries messages from the retina to the brain.

OPTICIAN—One who grinds lenses, fits them into frames and adjusts the frames to the wearer.

OPTIC NERVE—The special nerve of the sense of sight which carries messages from the retina to the brain.

OPTOMETRIST—A licensed, nonmedical practitioner who measures refractive errors—that is, irregularities in the size or shape of the eyeball or surface of the cornea—and eye muscle disturbances. In his treatment the optometrist uses glasses, prisms and exercises only.

ORTHOPTIC TRAINING—Series of scientifically planned exercises for developing or restoring the normal teamwork of the eyes.

ORTHOPTIST—One who provides orthoptic training.

PARTIALLY SEEING CHILD—For educational purposes, a partially seeing child is one who has a visual acuity of 20/70 or less in the better eye after the best possible correction and who can use vision as his chief channel of learning.

PERIPHERAL VISION—Ability to perceive the presence, motion or color of objects outside the direct line of vision.

PRESBYOPIA—A gradual lessening of the power of accommodation due to a physiological change which becomes noticeable after the age of 40.

PROSTHESIS—An artificial substitute for a missing eye or other missing part of the body.

REFRACTION—Deviation in the course of rays of light in passing from one transparent medium into another of different density and/or determination of refractive errors of the eye and correction by glasses.

REFRACTIVE ERROR—A defect in the eye that prevents light rays from being brought to a single focus exactly on the retina.

REFRACTIVE MEDIA—The transparent parts of the eye having refractive power; cornea, aqueous, lens and vitreous.

RETINA—Innermost coat of the eye, formed of sensitive nerve fibers and connected with the optic nerve.

RETROLENTAL FIBROPLASIA—A disease of the retina in which a mass of scar tissue forms in back of the lens of the eye. Both eyes

are affected in most cases and it occurs chiefly in infants born prematurely who receive excessive oxygen.

SAFETY GLASSES—Impact-resistant; available for both adults and children with or without visual correction for workshop or street wear protection.

SCLERA—The white part of the eye—a tough covering which, with the cornea, forms the external, protective coat of the eye.

SLIT LAMP—Provides a narrow beam of strong light; often used with a corneal microscope for examination of the front portions of the eye.

SNELLEN CHART—Used for testing central visual acuity. It consists of lines of letters, numbers or symbols in graded sizes drawn to Snellen measurements. Each size is labeled with the distance at which it can be read by the normal eye. Most often used for testing vision at a distance of 20 feet.

STRABISMUS—Squint; failure of the two eyes simultaneously to direct their gaze at the same object because of muscle imbalance.

STREPHOSYMBOLIA—"MIRROR READING"—A disorder of perception in which objects seem reversed, as in a mirror. A reading difficulty inconsistent with a child's general intelligence, beginning with confusion between similar but oppositely oriented letters (b-d, q-p) and a tendency to reverse direction in reading.

TELESCOPIC GLASSES—Magnifying spectacles designed on the principle of a telescope; occasionally prescribed for improving very poor vision which cannot be helped by ordinary glasses.

VISION—The art or faculty of seeing; sight.

Guidelines for Resource and Itinerant Teachers

BEFORE SCHOOL STARTS

- Procure the names of all students who will be participating in the program and their respective teachers.
- Be sure that all information about newly enrolled youngsters has arrived and is properly filed.
- Examine the children's cumulative records, especially those of new entrants.
- Review health records, specifically the visual status of each child.
  Determine how glasses are required to be worn.
  If insufficient information has been recorded, check with the physician, nurse and parents.
  Note specifications regarding restrictions necessary to safeguard the child's residual sight.
  Determine what books will be of immediate use and need to the students for their classroom activities.
  Obtain a class schedule from the teacher.
  Give to the regular teacher a notebook bearing the student's name for intercommunication between the resource teacher and classroom teacher during the course of the year.
  Questions, answers, etc., may be written in the book and relayed via respective mail boxes.
  Invite teachers and other interested school personnel into the resource room.
  Acquaint them with the materials used, etc.
- Offer materials that will be of assistance to the visually handicapped child in the classroom, especially those which will be of interest and benefit to other members of the class.
- Orient the new students.
  Introduce them to their classroom teacher.
  Familiarize them with the relative position of their classroom to the office, resource room, lavatory, drinking fountains, playground, cafeteria, etc.

- Check with the individual responsible for the student's transportation to determine that all necessary arrangements have been carried out.

THE BEGINNING OF SCHOOL

- Arrange with supervisor or principal for a general meeting of all teachers who will be working with visually handicapped students for the first time. The school representative (principal, counselor or school nurse if there is not a supervisor) will conduct the meeting. As Resource Teacher, you probably will explain the program, answer questions and convince the teachers of your availability and willingness to help. Invite them to visit the resource room to become acquainted with the facilities and equipment.
- Arrange to visit each teacher individually some time in the first week or two of school. His classroom is a better place than your room for the first meeting. He is at home there and this is important until he has confidence in his ability to work with the visually handicapped.
- Frequent impromptu visits (lunchroom, teacher's room, school activity room or wherever you can plan to meet accidentally) convince the teacher that you are interested in his progress with the student.
- Issue a personal invitation to parents and teachers during the first conference period without making this meeting seem obligatory.
- Invite each class to the resource room. Let the children in the program act as hosts and hostesses, acquainting the visitors with the room and materials.
- Strive to establish friendly relations with the librarian, teachers, principal, transcribers, nurse, custodian and office staff.

FEBRUARY-MARCH

- List textbooks which will be needed for the next year for each student.
- Check the American Printing House for the Blind catalogs and fill out book orders for those available.

- List separately those books which are not listed in the American Printing House for the Blind catalog.
- Send completed book orders and book lists to Consultant, Visually Handicapped, Georgia Department of Education, Atlanta, Georgia 30334.
- Secure information on sources of volunteer transcribed and recorded books from

  Carl Lappin, Director
  Instructional Materials Reference Center
  American Printing House for the Blind
  1839 Frankfort Avenue
  Louisville, Kentucky 40206

DURING THE YEAR

- Set up schedules.
- Keep a record of materials borrowed and loaned.
- Have an accurate time sheet for braillists, typists and proofreaders.
- If you are an itinerant teacher, keep a mileage record.
- Be a paying member and an active participant in professional organizations.
- Maintain a list of interested and helpful persons in the community (carpenters, typewriter salesmen, etc.)
- Have library books available in both the resource room and the school library.
- Send equipment out for repairs when needed.
- Fill teachers' requests for materials.
- Have informal conferences with individual teachers to discuss progress of students and any problems that may arise.
- SEND CHILDREN'S EYE REPORTS TO THE GEORGIA DEPARTMENT OF EDUCATION as soon as possible after school begins.
- Request purchase of books which can be bought with textbook funds.
- Assign transcribers to type or braille other textbooks.
- Catalog all books.
- Order necessary materials for the fall term.

THE CLOSING OF SCHOOL

- Tentatively place students for the next school year.
- Make additions to each child's folder.
- Return braille and large type books to

  Textbook Consultant
  Library for the Blind and Physically Handicapped
  1050 Murphy Avenue, S.W.
  Atlanta, Georgia 30310

  and send list of all books which are being kept in the system.